

# Interconnection Process for Small Producers using Renewable Energy Resources

Michael J. McCoy, Senior Engineer  
Tri-State Generation & Transmission  
Association





Tri-State Buys Green Power which  
they sell to their member co-ops



5,100 miles of high-voltage  
transmission line

403 member delivery points



# What is a small Producer?

- This is defined in Section 201 of PURPA.
  - PURPA is the Public Utilities Regulatory Act passed in 1978 which modified the Federal Power Act to allow small producers to interconnect and receive special treatment if they meet certain criteria.
  - Section 201 issued in 1980, defines the criteria necessary to obtain the “Qualifying Facility” status.



# Section 201

- Defines two types of “Qualifying Facilities”
  - Cogeneration Facility
  - Small Power Production Facility



# Small Power Production Facility

- A facility that produces electric power using:
  - Biomass
  - Waste
  - Renewable resources
    - Wind
    - Solar
    - water
- Less than 80 megawatts



# Why do you want “Qualifying Facility” status?

- Four benefits
  - Requires energy purchase at avoided cost
  - Guarantees interconnection
  - Guarantees backup electric service at reasonable rates
  - Exempts small power producers from Federal and State utility regulations and reporting requirements



# Documents/Information to submit:

- Request letter sent to TS which includes:
  - Who
    - Company name & contact information
  - What
    - Sales to Tri-State
    - Wheeling of power to third parties
  - When
    - Costs
    - Start of Construction
    - Energy production
  - How
    - Anaerobic Digester
    - Wind
    - Boiler fueled by biomass derived energy source
    - Solar
  - Where
    - Maps showing general location of proposed facility




# Meeting to Discuss Project

- Attendees:
  - Tri-State
  - Third Party Purchasers
  - Member Co-op representatives
  - Producers
    - Principals
    - Consultants
    - Equipment vendors



# Meeting Agenda

- Introduction of attendees
  - Overview of Project by Principal
  - Q & A
    - If the meeting is on the proposed site, a tour should be provided
  - Overview of Tri-State's "Interconnection Standards for Qualifying Facilities" with general discussion of specific sections
  - Develop list of needed information by attendee and deadlines to provide it.
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# Meeting on Teague AD project



# Information needed by Tri State

- Complete design package
  - Complete site plan
  - System one-electric diagram
  - Relay control diagram
  - Detail listing of device types
  - Manufactures data for all equipment
  - Detail on power factor equipment
  - Proposed operating procedures
  - Anticipated peak power production and monthly energy supply numbers



# Information needed by Producer

- Costs and design approval from Tri-State & its Member Co-op
  - Technical review & analysis
  - Metering--upfront & periodic
  - System additions & modifications
- Costs from Vendors, Engineers & Contractors
  - Design
  - Equipment
  - Licenses/permits
  - Legal
  - Insurance
  - Personel
  - Maintenance



# Producer decides to Proceed

- Letter to Tri-State and member Co-op
  - check for costs
  - detail information
    - names to used for contracts, time tables, contact information for those actively involved in the construction
  - agent responsible for the legal preparation and process of paperwork.
- Developer files appropriate applications for licenses and permits.
- Developer submits to Tri-State and member Co-op
  - Detailed design/installation/operation/manufacture's information
    - Electrical facilities
    - Mechanical equipment
- Developer provides details on
  - site location and interconnection.

# Legal Documents

- Tri-State
  - Producer Power Purchase contract
  - Utility Inspection report approving facility
  - Authorization to interconnect signed
  - Approval of liability insurance
  - Notified of approval by local government Electrical inspection
  - Witnesses testing of facility
- Producer
  - secures liability insurance and submits a copy to Tri-State
  - Provide Operation schedule
  - Provide Maintenance Schedule
  - Request Electrical Inspection

# Construction

- Producer builds project
- Tri-State orders and installs needed equipment
- Member co-op orders and installs needed equipment



# Inspection/Verification

- Tri-State inspects and reviews tests prior to making the final connection.
- Member Co-op inspects installation of new equipment on their system.
- Inspections completed by equipment suppliers.
- Government inspections completed for compliance.



# Commercial Operation begins after:

- Interconnection to system completed
- Final testing verifies proper operation of safety and metering systems
- All contracts and required documents are signed and distributed



